

Somerset County Emergency Operations Plan

ATTACHMENT D - SEVERE SUMMER STORMS & HURRICANES

I. NATURE OF THE HAZARD

In Somerset County, the most likely damages caused by a severe summer storms or hurricane are the loss of electrical power from downed power transmission lines, the blockage of roads from tree debris, wash-outs caused by water runoff that overwhelms local drainage systems, and erosion resulting from Wave action or river flow. There could be injuries or loss of life caused by delayed responses from emergency services, debris falling on an individual, or from storm-related vehicle accidents resulting from downed tree limbs, road wash-outs or erosion. Other types of general damage to personal and real property may be caused by high winds. If power is lost for extended periods of time, major summer storms can shut down businesses, resulting in major losses of income to local businesses and individuals. Severe summer storms and hurricanes has been rated as the #3 hazard profiled in the Somerset County All-Hazard Mitigation Plan.

It is evident that Somerset County is as diverse and changing in climate and all-hazard effects as it is in the rapidly changing four tourist seasons, land use, employment, population and stages of this county's and state history. The effects of all-hazard events in all four weather seasons have an economic impact on Somerset County. Tourism and four season recreation activities are known not only to provide the economic boost to Somerset County, but also expand the population and public safety responsibility far beyond the reported resident population of 50,888. It has been discussed as being doubled at times depending upon the activities or events.

Severe summer storms are seen as major thunderstorms, tropical storms and hurricanes in Somerset County. Thunderstorms are far more numerous and much less severe in effect and duration. The primary effect is in producing short-term high winds, to include micro-bursts. Tropical storms are a lot less likely than thunderstorms, but more likely than a hurricane. The ingredients for a major tropical storm or hurricane include a pre-existing weather disturbance, warm tropical oceans, moisture, and relatively light winds aloft. These storms are classified as follows:

Tropical Depression: An organized system of clouds and thunderstorms with a defined surface circulation and maximum sustained winds of 38 mph (33 knots) or less. Sustained winds are defined as one-minute average wind measured at about 33 ft (10 meters) above the surface.

Tropical Storm: An organized system of strong thunderstorms with a defined surface circulation and maximum sustained winds of 39-73 mph (34-63 knots).

Hurricane: An intense tropical weather system of strong thunderstorms with a well-defined surface circulation and maximum sustained winds of 74 mph (64 knots) or higher.

Hurricanes can cause catastrophic damage to coastlines and several hundred miles inland. Winds can exceed 155 miles-per-hour. Hurricanes and tropical storms can also spawn tornadoes and micro bursts, create surge along the coast, and cause extensive damage due to inland flooding from trapped water.

A storm surge is a huge dome of water pushed on-shore by hurricane and tropical storm winds. Storm surges can reach 25 feet high and be 50-100 miles wide. Storm tide is a combination of the storm surge and the normal tide (i.e., a 15 foot storm surge combined with a 2 foot normal high tide over the mean sea level creates a 17 foot storm tide). These phenomena cause severe erosion and extensive damage to coastal areas, which does not affect Somerset County.

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II. RISK AREA

Though less likely than a winter storm, Somerset County is subject to severe summer storms and hurricanes. Maine has not seen a hurricane greater than a Category 1 (74-95 mph winds) in well over a hundred years. The coastal areas of Maine along the mainland and on the islands, which contain the vast majority of the county's population, are susceptible to the high winds, severe rains and storm surge flooding caused by tropical storms and hurricanes. The northern sections of the County may see a lesser degree of the high winds, severe rains and storm water flooding of wetlands.

Although all areas in Somerset County are at risk from severe summer storms and hurricanes, it is the southern communities that face the greatest potential losses. The largest population of Somerset County resides in seven communities of: Anson, Fairfield, Hartland, Madison, Norridgewock, Pittsfield and Skowhegan.

All major vehicle routes are subject to transportation of hazardous materials and waste products, to and from many facilities within and from outside of the county that supports the industrial and business hub of Somerset County, which is located predominately in the southern section of the county, mainly in seven communities; Anson, Fairfield, Hartland, Madison, Norridgewock, Pittsfield and Skowhegan. The Two major waterways (the Kennebec and Sebasticook) also flow through the seven major communities, posing significant flood treats during the transition of the seasons from winter to spring with rapid snow melt and spring run off.

III. DIRECTION AND CONTROL

Each municipality will be responsible for conducting debris clearance and for closing flooded roads from the municipal maintained roadways. The Maine Department of Transportation is responsible for the same on state-maintained highways. Debris removal is a normal operation of municipalities in Somerset County and there are no mutual aid agreements for debris removal between communities. During a major summer storm, either additional resources will be contracted or the removal times will be lengthened. Municipal fire departments may be used to help clear tree debris from roadways.

The Maine National Guard and Maine Department of Transportation may be called upon to assist the municipalities. To acquire state resources for debris clearance, each municipality will provide resource requests to the Somerset County EMA. The County EMA will forward the requests to the Maine Emergency Management Agency.

IV. COMMUNICATIONS

Communications will be maintained between the Somerset County RCC, the Somerset County EMA office, the first responders and the municipal officers. A major tropical storm or hurricane could down telephone transmission lines and drop cellular and radio towers. It is not likely however, that all phone, cell phone and radio transmission resources will be out simultaneously over the entire county for lengthy periods of time.

V. WARNING

The National Weather Service will provide Storm Warning and Watches via the NOAA Weather

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Radios and local radio and television stations. The Somerset County EMA may contact the Maine Emergency Management Agency to activate the Emergency Alert System, if it is deemed that warning or evacuation information is necessary for Somerset County residents and tourists.

Hurricane/Tropical Storm Watch: Hurricane and tropical storm conditions are possible in the specified area, usually within 36 hours.

Hurricane/Tropical Storm Warning: Hurricane and tropical storm conditions are expected in the specified area, usually within 24 hours.

Short Term Watches and Warnings: These warnings provide detailed information on specific hurricane threats, such as flash floods and tornadoes.

The Somerset County EMA will contact the municipal EMA Director or Fire Chief to make recommendations such as road closures, school closures or stand-by alerts.

VI. EMERGENCY PUBLIC INFORMATION

Because a Maine summer storm typically effects a large section of the state, the Maine Emergency Management Agency and the two Maine-based National Weather Service Stations will contact local radio and television stations to notify the public of the expected severity and conditions of the winter storm, instructions on how to prepare for storm and the status of road closures.

VII. EVACUATION

Evacuations may be required in the coastal and island communities as a result of an approaching severe tropical storm or hurricane. The Somerset County EOC will coordinate evacuation routes with the Maine State Police, County Sheriff's Office and local police and/or fire departments. Special need population evacuation consideration may be required for nursing homes in coastal communities.

VIII. MASS CARE

Inland shelters may need to be opened to provide enough shelter for evacuated coastal residents and tourists. The Somerset County EMA Director will make shelter requests to the Mid-Maine Chapter of the American Red Cross in Waterville.

If the numbers are limited, these people may be sheltered in area commercial lodging. If the numbers are sufficiently high, then mass care facilities will be established outside the danger areas.

IX. HEALTH AND MEDICAL

The Somerset County EMA will contact local area EMS units to determine if road blockages are causing delays in emergency transports.

X. RESOURCE MANAGEMENT

Municipalities will contact the County EMA office when requesting resources.

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